Review of Poverty Concepts and Indicators

by Renata Lok-Dessallien

This paper presents an overview of different concepts of poverty and approaches to its measurement. The variation in concepts reveals the multidimensional nature of poverty. Poverty can be conceived as absolute or relative, as lack of income or failure to attain capabilities. It can be chronic or temporary, is sometimes closely associated with inequity, and is often correlated with vulnerabilities and social exclusion. The concepts used to define poverty determine the methods employed to measure it and the subsequent policy and programme packages to address it. The paper reviews the main types and families of indicators that have emerged over time, highlighting their strengths and weaknesses. It concludes with practical guidance to inform the choice of poverty indicators at country level.

Introduction

The manner in which poverty is measured reflects fundamental assumptions as to its nature and causes. These assumptions are often overlooked when it comes to assessing poverty-related data and deriving policy and programme implications. This article provides an overview of main concepts of poverty, different approaches to measuring it, and provides guidance to assist in selecting indicators for measuring poverty at the country level.

A considerable body of literature exists on different types or categories of poverty indicators. However, new perspectives on the causes and manifestations of poverty that have emerged over the last several years call on development practitioners to expand conventional sets of indicators to reflect a broader understanding of the phenomenon. Although work is currently under way in this area, existing literature is still biased toward the past. With this in mind, an attempt has been made to synthesize some of the main points made in current literature and to complement them where gaps are apparent.

Main Concepts of Poverty

As a multidimensional phenomenon, poverty is defined and measured in a multitude of ways. Given the complexity of the issues, the best introduction to poverty measurement is through the multifaceted nature of the phenomenon and the different concepts of it. The following paragraphs describe different concepts of poverty and attempt to distinguish between poverty and other closely related concepts.

From the perspective of indicators, these distinctions are important since poverty measurement, and subsequent policy/programme implications, depend on what facets or angles of poverty are being addressed. For example, if a national poverty reduction strategy is supposed to address both temporary and chronic poverty, two distinct sets of policies and programmes would be required, along with two sets of indicators for establishing baselines and monitoring progress. Likewise, if the definition of poverty is based on the human capabilities concept, then appropriate sets of indicators would be required to measure it along with corresponding policies and programmes to address it. This would result in poverty reduction strategies that differ from those associated with an income-based concept of poverty.

Poverty Concepts

ABSOLUTE AND RELATIVE POVERTY

Poverty can be viewed in absolute and relative terms.[1] Absolute poverty refers to subsistence below minimum, socially acceptable living conditions, usually established based on nutritional requirements and other essential goods. Relative poverty compares the lowest segments of a population with upper segments, usually measured in income quintiles or deciles.

Absolute and relative poverty trends may move in opposite directions. For example, relative poverty may decline while absolute poverty increases if the gap between upper and lower strata of a population is reduced by a decline in well being of the former at the same time that additional households fall beneath the absolute poverty line.

Even within so-called absolute poverty, countries often distinguish between indigence, or primary poverty and secondary poverty (sometimes referred to as extreme and overall poverty). Indigence usually refers to those who do not have access to the basic necessities for human survival, while other forms of poverty refer to degrees of deprivation above that threshold.

Amartya Sen points out that poverty can be an absolute notion in the space of capabilities, though relative in that of commodities or characteristics.[2] For example, households incapable of obtaining sufficient food for survival are considered absolutely poor. However, the costs and composition of that food basket may vary considerably between households across different groups, regions and countries.

Another facet of absolute and relative aspects of poverty pertains to changes in circumstances. For example, if prices rise faster than incomes,

the well being of some households classified as relatively poor may decline to levels formally associated with absolute poverty, without a corresponding change in status since the living standards of the absolute poor have also declined proportionally. A similar situation arises when cultural or status values change over time. To quote Paul Streeten, "Absolute deprivation is a function of relative advantage."[3]

Many development partners place highest priority on reducing absolute poverty because of the urgency associated with starvation, malnutrition and other afflictions. However, relative poverty is not an exogenous factor in the fight against absolute poverty. The broader context of relative well being, in which absolute poverty may occur, is critical to the establishment of policies and programmes to reduce absolute poverty.

Most advocates of the rights-based approach to poverty utilize a relative definition, arguing that to do otherwise would acknowledge first- and second-class citizens. This contention is derived from common methodologies used to measure absolute poverty, which involve defining a minimum consumption basket that does not include items considered "essential" by the rest of society.

OBJECTIVE AND SUBJECTIVE PERSPECTIVES

Poverty can be approached from objective or subjective perspectives. The objective perspective (sometimes referred to as the welfare approach) involves normative judgements as to what constitutes poverty and what is required to move people out of their impoverished state. The subjective approach places a premium on people's preferences, on how much they value goods and services (hence the emphasis on individual utility).

Economists have traditionally based their work on the objective approach, mainly because of the obstacles encountered when trying to aggregate multiple individual utilities across a population. Advocates of this approach use the argument that individuals are not always the best judge of what is best for them. For example, most poverty measurement systems focus on nutritional attainments. Although all individuals value food consumption, some may place higher value on certain food types or food quantities that are not best for their physiological well being. It is conceivable that the subjective approach could both undervalue or overvalue food consumption when compared to the welfare approach, leading to conflicting assessments as to who are the poor.

Poverty measurement has traditionally been dominated by the objective approach. Only relatively recently has the international community as a whole taken a serious interest in measuring subjective poverty. This is mainly because of mounting recognition of the limitations associated with so-called objective indicators and the value of understanding the perspectives of the poor in shaping policies and programmes. As a result, participatory poverty assessment methodologies have been gaining ground.

Clearly both objective and subjective perspectives bring valuable insights to the measurement and analysis of poverty. They approach the phenomena from different angles and capture fundamentally different aspects of it, neither of which can be said to be categorically right or wrong.

PHYSIOLOGICAL AND SOCIOLOGICAL DEPRIVATIONS[4]

Several poverty concepts are derived from perceived causes of poverty. They can be divided into two types of deprivations—physiological and sociological. Regarding the former, the line of thinking is as follows: people are poor because they lack income, food, clothing and shelter. Both the income and basic needs concepts of poverty stem from physiological deprivations (although some advocates of the basic needs concept set the parameters beyond physiological needs). Strategies to reduce poverty emerging from these approaches focus on increasing the income/consumption of the poor and their attainment of "satisfiers" of basic needs, such as health and education.

The concepts of poverty emerging from the perspective of sociological deprivations are rooted in underlying structural inequities and inherent disadvantages. They are based on observations that even when resources are flowing into sectors dominated by the poor, the latter may not be able to take full advantage of them because of structural impediments. These constraints hamper access by the poor to "external" assets, such as credit, land, infrastructure and common property (i.e., the natural environment), and "internal" assets, such as health, nutrition and education. The fundamental causal factors lie in power structures and governance issues, as well as in the inequities imbedded in macropolicy frameworks and distributional systems.

The human capability concept of poverty focuses on expanding people's opportunities and spans both the physiological and sociological realms of deprivation. Accordingly, poverty is "not merely in the impoverished state in which the person actually lives, but also in the lack of real opportunity—due to social constraints as well as personal circumstances—to lead valuable and valued lives."[5] Emphasis on empowering the poor, facilitating their participation in society and enabling them to move upward on the socioeconomic ladder, are central to the human capability approach to poverty reduction.

In operational terms, the focus on empowerment, participation and enabling creates special challenges. First, there is no consensus as to what constitutes an enabling and empowering environment, much less what is "good" participation (i.e., is participation through involvement of larger numbers of people but resulting in less empowerment better or worse than participation of smaller numbers of people that results in greater empowerment?). Second, the expansion of the concept of poverty to include other broad areas of concern, such as participation, actually undermines the usefulness of the concept from a policy perspective. This is because the expanded mega-concept blurs what is at stake (see *Poverty Measurement Methods—An Overview* by Julio Boltvinik). Although the concerns are closely linked, it is recommended for policy purposes that these concepts maintain distinct identities.

Relate Concepts

POVERTY AND INEQUITY

Whereas poverty refers to different forms of deprivation that can be expressed in a variety of terms (i.e., income, basic needs, human capabilities), equity is concerned with distribution within a population group. Despite the clear distinction between the two concepts, analysis of poverty often employs indicators of equity because of inherent linkages between the two. Recent studies have concluded that in certain country contexts it is easier to reduce poverty under relatively egalitarian conditions.

The association of poverty and equity indicators is done in a number of ways: disaggregation (i.e., many indicators can be disaggregated by gender, race or region); associating distributional measures with other poverty indicators (i.e., such as per capita personal income and the Lorenz curve); and mathematical formulae (such as the Atkinson method).

As the international development community develops indicators for its broadened understanding of poverty, measures of equity will likely be increasingly used alongside poverty indicators in order to capture a more complete picture of the situation.

POVERTY AND VULNERABILITY

Although poverty and vulnerability are often related, they are not synonymous. Some groups may be at risk of becoming poor because of inherent vulnerabilities (i.e., different types of discrimination based on class, gender, ethnicity, or factors such as disability, region of residence and family configuration). Furthermore, certain combinations of vulnerability may be strongly correlated with poverty, such as female-headed households or families living in remote and isolated mountainous regions. But not all members of a particular vulnerable group are invariably poor—hence the need to distinguish between the two when dealing with indicators. In short, poverty relates to deprivation, while vulnerability is a function of external risks, shocks, stresses and internal defencelessness.[6]

The high degree of correlation between certain combinations of vulnerabilities and poverty is increasingly leading development practitioners toward using the former as proxies for poverty. This can prove useful when trying to ascertain a general estimation of the extent of poverty. However, using a vulnerability indicator as a proxy for poverty necessitates careful analysis to determine the degree of correlation and regular testing to ascertain its validity over time.

POVERTY AND EXCLUSION

There is no broad consensus on the definition of social exclusion, or its relationship to poverty. At one end of the spectrum, there are those who define social exclusion within the concept of poverty, focusing on those aspects of social deprivation that impede people from participating fully in their society and its development. At the other end of the spectrum, there are those

whose notion of social exclusion encompasses a much broader range of issues, including poverty itself. Needless to say, between these two extremes lies a range of different approaches to the concept.

Clearly, the definition of social exclusion depends to a great extent on how one defines poverty. If one's definition of poverty were narrow, expressed in terms of material deprivation (such as lack of income), then it would not be surprising that the definition of social exclusion would be considered in broad terms, including material deprivation. If, however, one's definition of poverty is multidimensional, then it is likely that social exclusion would refer more specifically to issues of participation, empowerment and social rights.

POVERTY AND UNDERDEVELOPMENT

The distinction between poverty and underdevelopment also depends on how each is defined. When defined in broad human deprivation terms, poverty is often viewed as a form of underdevelopment. The *Human Development Report 1997* distinguishes between the two concepts by associating the former with individuals and the latter with an aggregate perspective. "The contrast between human development and human poverty reflects two different ways of evaluating development. One way, the 'conglomerative perspective,' focuses on the advances made by all groups in each community, from the rich to the poor. This contrasts with an alternative viewpoint, the 'deprivational perspective,' in which development is judged by the way the poor and the deprived fare in each community. Lack of progress in reducing the disadvantages of the deprived cannot be 'washed away' by large advances—no matter how large—made by the better-off people."[7]

Given the close relationship between these two concepts, it is not surprising that many poverty indicators are the same as those used to measure underdevelopment.

From a policy and programme perspective, the necessity of recognizing a distinction between poverty and underdevelopment depends a great deal on two factors: the degree of equity within a society, and the prevalence of poverty. Effective anti-poverty policies and programmes in relatively inegalitarian societies with small pockets of poverty would look very different from those in relatively egalitarian societies with extensive poverty. A simple matrix, such as that in Figure 1, may help to relate anti-poverty strategies with overall development plans in different contexts. Generically speaking, countries that fall into cells C and D would be advised to closely link their anti-poverty strategies with the overall development plan (i.e., emphasizing universal programmes), whereas countries that fall into cells A and B would be advised to maintain discrete anti-poverty strategies, with an emphasis on targeting.

Figure 1

Development Plans and Poverty Reduction Strategies

The distinction between overall development plans and poverty reduction strategies depends on the context of poverty and equity.
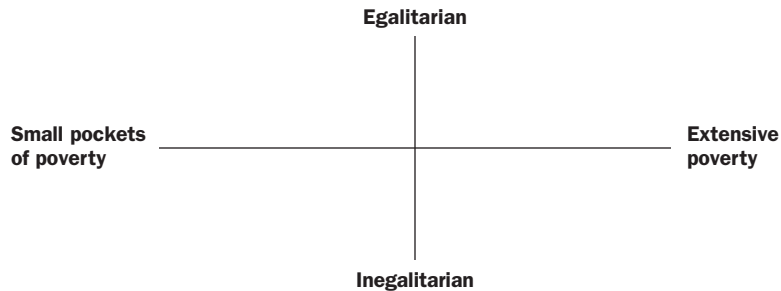
In indicator terms, the prevalence of poverty also influences the types of indicators appropriate for its measurement. For example, indicators used to measure localized poverty would tend to be far more detailed and tailored to particular characteristics of population sub-groups than indicators measuring widespread or massive poverty. This is because the context and characteristics of the former situation are probably more readily knowable, and perhaps even less varied, than the latter.

Approaches to Measuring Poverty

How do the different concepts of poverty translate into indicators for measuring it? How does one ensure the right "fit" between definition and indicators? To answer these fundamental questions, we need to first explore the different types and families of indicators at our disposal.

Double Dichotomies

There are two basic types of distinction that help differentiate families of poverty indicators: means/ends and quantitative/qualitative.

ENDS AND MEANS

The distinction between "means" and "ends" lies at the base of a conceptual divide regarding poverty monitoring. The former refers to indicators of inputs intended to achieve an end result, while the latter measures the ultimate outcomes. For example, the cost of a minimum food basket is a "means" indicator, while nutritional status (as measured by a variety of indicators such as weight-for-height and height-for-age ratios, incidence of vitamin deficiencies, etc.), is of the "ends" type. The fact that certain "means" indicators correspond to measurable "ends" should not be misconstrued to imply that the former are exclusively responsible for latter outcomes.

Poverty has traditionally been measured using "means" indicators (as proxies for "ends"), of which the most common have been the money-metric family. However, recent work on "ends" indicators is gaining interest

and support within the development community, as exemplified most recently by the Human Poverty Index (HPI) of the 1997 Human Development Report.

An advantage of using "means" indicators is that there are many to choose from, whereas the main drawback is that one is necessarily using a proxy, or set of proxies, with varying degrees of correlation to one's definition of poverty. Although "ends" indicators correlate more closely with the phenomena being measured, they tend to change relatively slowly over time and may not be adequate for purposes of poverty monitoring in the short and medium term. Some may also be very expensive to collect.

Given the strengths and weaknesses of both indicator types, and depending on the purposes for which poverty measurement is undertaken and the availability of data, a combination of both "means" and "ends" indicators is often the most pragmatic approach.

Most quantitative "means" and "ends" indicators can be used in simple or composite forms (i.e., groups of indicators combined into an index). A note of caution is in order regarding the latter—composite indices are useful for comparing general trends across countries and for advocacy and research purposes. However, within countries, they should not be used without close attention to the information conveyed by each constituent indicator. In addition, there is a tendency to assume that composite indices capture more information than they actually do. For example, the Human Poverty Index informs us, in synthesized form, about longevity (percentage of the population expected to die before age 40), adult illiteracy, access to health services and to safe water, and under five malnutrition rates. However, many other elements of poverty, as perceived from a human capability perspective, are not included in the HPI. It would therefore be erroneous to assume that the HPI actually depicts human capability poverty in its entirety. In fact, the HPI depicts certain key and easily measurable elements of human poverty.

QUANTITATIVE AND QUALITATIVE

Quantitative and qualitative indicators are sometimes confused with objective and subjective perspectives of poverty. In fact, an objective concept of poverty could be measured with both quantitative and qualitative indicators, and the same applies to subjective approaches. For example, an objective approach to poverty measurement may determine that perceptions of deteriorating academic standards (a qualitative indicator) are the principal cause of declining school enrolment. Likewise, a subjective approach to poverty measurement may reveal that household composition (which can be quantified) is a central characteristic of poverty.

The confusion arises because the main methodologies for obtaining "objective" poverty indicators are survey questionnaires, which generally place a premium on quantitative data. Conversely, the main instruments used to ascertain subjective perspectives of poverty result in generous amounts of qualitative information (although they may also generate quantitative data).

Quantitative data can be aggregated whereas qualitative information usually cannot. On the other hand, qualitative information may provide a subtler picture of reality than can quantitative data.

The following box depicts common indicators identified by local people in Asia and Africa to describe lack of well being. They represent a subjective perspective, but mix both quantitative and qualitative indicators.

Box 1

Criteria used by local people in Asia and sub-Saharan Africa for lack of "well being"

- disabled (i.e., blind, crippled, mentally impaired, chronically sick)
- widowed
- lacking land, livestock, farm equipment, a grinding mill
- cannot decently bury their dead
- cannot send their children to school
- having more mouths-to-feed, fewer hands-to-help
- lacking able-bodied members who can fend for their families in crisis
- bad housing
- having vices
- being 'poor in people,' lacking social support / solidarity
- having to put children in employment
- single parents
- having to accept demeaning work or low status work
- having food security for only a few months each year
- being dependent on common property resources

Source: Chambers, R., "Poverty and Livelihoods: Whose Reality Counts?" IDS Discussion Paper 347, 1995.

The income and basic needs concepts of poverty are characterized predominantly by quantitative indicators (although qualitative indicators may be employed to ascertain people's perception of, for example, the quality of services or the quality of life). The human capability poverty approach utilizes both types of indicators, but may incorporate more qualitative indicators than the income and basic needs approaches. Qualitative indicators dominate the participatory and empowerment approaches to poverty reduction.

The two sets of indicators described above intersect when it comes to measuring poverty. A broad approach to monitoring poverty would draw on all possible sets (means and ends, quantitative and qualitative).

Families of Poverty Indicators

The main families of indicators that emerge from the different conceptual approaches to poverty are as follows: income, basic needs, capabilities and a mixed group of indicators relating to the enabling environment (access to assets, equity and governance). "Means" indicators dominate the income, basic needs[8] and access families, while "ends" indicators constitute the capability family.

INCOME

Poverty measurement has been dominated by the so-called *income approach*. From a conceptual perspective, the term "money-metric" is more appropriate since some of the so-called income indicators can, in fact, be based on expenditure or consumption data. Regardless of how this set of indicators is derived, it is expressed in money-metric terms.

This approach to poverty measurement assumes that individuals and households are poor if their income or consumption falls below a certain threshold, usually defined as a minimum, socially acceptable level of well being by a population group. The emphasis is placed on material well being, and income, a "means" indicator, is employed as a proxy for poverty.

The most widely utilized income poverty indicators are the headcount index and per capita GNP. The *headcount index* is based on a poverty line (or set of lines) that are established by costing a minimum basket of essential goods for basic human survival, using income, consumption or expenditure data of nonpoor households. The incidence of poverty is then calculated as the percentage of the population whose incomes fall below that threshold.

Income indicators can also be used to measure the depth and severity of poverty. The *poverty gap index* measures the degree to which the mean income of the poor differs from the established poverty line (depth of poverty). Distributionally sensitive measures, such as the *squared poverty gap index*, capture differences in income levels among the poor (severity of poverty).

In the absence of household survey data, income poverty is sometimes measured in *per capita GNP* terms. However, this latter indicator is a very crude measure and can often be misleading since it is possible for per capita GNP to grow while personal incomes remain static or even decline among particular population groups. For this reason, *per capital personal income* is a preferable aggregate income indicator. "Rapidly growing per capita GNP is quite consistent with stagnant per capita personal income of the agricultural households if: growth is concentrated in sectors other than agriculture; or the terms of trade turn against agriculture; or macroeconomic policies bring about a redistribution in favour of income/accumulation in the public sector; or a combination of the above circumstances occur."[9]

Some of the attractions of income poverty indicators are that they are aggregates of multiple inputs; they are expressed in units that are of immediate and widespread relevance, and they are theoretically objective, i.e., they weigh inputs to well being according to how the "real world" values them.

The limitations associated with income indicators of poverty have been extensively documented. In short, the drawbacks pertain to price and commodity differentials, the exclusion of noncash and "free" items (such as publicly provided goods and services), and the omission of other factors, such as time required to obtain a commodity.

Although practitioners agree on the inherent limitations of this approach, it nevertheless continues to be the most widely used means of measuring poverty, partly because of the relative abundance of data and partly because of its simplicity.

BASIC NEEDS

The basic needs concept of poverty takes the income approach one step further. It defines poverty as the deprivation of requirements, mainly material for meeting basic human needs. The approach attempts to address some of the limitations of the income indicator family by distinguishing between private income, publicly provided services and different forms of nonmonetary "income." The basic needs approach to poverty measurement includes access to such necessities as food, shelter, schooling, health services, potable water and sanitation facilities, employment opportunities, and even touches on opportunities for community participation. Basic needs indicators are often classified in the "means" category. However, since they are one step closer to outcomes than income measures, they are sometimes placed in a category of their own—"indirect ends."

Basic needs indicators add a wide range of dimensions to income measures. The big advantage of the former over the latter is that they measure goods and services directly in terms of human welfare. For example, a rise in housing or essential transport costs would be counted as a decline in well being using basic needs indicators, while per capita GNP would record this as an increase.

Some difficulties associated with basic needs indicators are that there is no way of aggregating them meaningfully for purposes of in-country analysis and they are usually expressed in terms that do not trigger the same kind of familiarity as monetary ones.

HUMAN CAPABILITY

The human capability approach to poverty measurement attempts to measure poverty in terms of outcomes or "ends." This approach defines the phenomena as the absence of basic human capabilities to function at a minimally acceptable level within a society. An emphasis is placed on people's abilities and opportunities to enjoy long, healthy lives, to be literate and to participate freely in their society.

Most capability poverty indicators are straightforward: life expectancy, literacy rates, malnutrition, etc. However, one set, those associated with participation, is more tricky.[10] Participation by the poor in their society is not an area that lends itself readily to quantification. It is much easier to quantify participation as a measure of equity, rather than of poverty. For example, the level of political participation by marginalized groups can be measured by their representation in political bodies. However, measurement of participation by the poor is a more difficult task. Qualitative indicators of participation by the poor are more enlightening in terms of the information conveyed, but they tend to only exist for small sample sizes, which limits their usefulness from a broad policy perspective.

The biggest advantage of capability indicators, as a whole, is that they measure well being in terms of final outcomes rather than as proxies for those outcomes. In addition, many of them are considered mainstream in

terms of national statistics, so data is often available. The main disadvantages are similar to those of the basic needs group. There are no perfect aggregates for this family of indicators and they are expressed in terms with varying degrees of familiarity. In addition, some capability indicators are group measures and cannot be used to gauge household or individual well being (i.e., life expectancy). Furthermore, some of the capability indicators are stock variables, which change slowly over time, thus limiting their usefulness for short- and medium-term poverty monitoring.

OTHER GROUPS OF POVERTY-RELATED INDICATORS

A range of other poverty-related indicators exists that do not fall neatly into a single family. Many of them have emerged relatively recently and are related to the concepts of enabling and empowerment. Of them, three main groups emerge as particularly relevant to poverty measurement: access by the poor to assets, inequity and governance.

Indicators measuring *access by the poor to assets* can be classified into four types: access to productive assets (i.e., land, capital); access to social and physical infrastructure; access to housing and other consumer durables; and access to common property (i.e., certain aspects of the natural environment). This group of indicators is highly relevant for poverty measurement purposes and relatively straightforward. For a fuller discussion on this set of indicators, see *Implementing Complementary Methods of Poverty Measurement* by Terry McKinley.

Indicators of *inequity* are also highly relevant to poverty measurement. This is partly because one of the purposes of poverty measurement is to identify who are the poor. Indicators of inequity help to do just that, and the relationship between poverty and inequity is such that the latter can be used for making educated guesses about the former in the absence of poverty data. There are three main data sources for measuring inequity: income distribution, disaggregation of other indicators by subgroups and time-use studies.

Regarding income distribution, just as per capita GNP is not the appropriate summary index for determining income poverty, so a change in some summary index of income distribution such as the Gini coefficient is not the relevant measure of the change in income distribution. Here, the relevant measure is the change in the appropriate segment of the Lorenz distribution. "For example, an unchanged Gini coefficient may be consistent with worsening poverty—given unchanged average income—if there is an adverse change in distribution between the deciles of income groups just below and above the PIT (personal income threshold), which is exactly offset by a favourable distribution between the top two deciles of income groups."[11]

Although Lorenz curves are usually used for examining income distribution, they can also be plotted for land distribution, which can be revealing from a poverty perspective. Unfortunately, the required data is derived from agricultural censuses, which many countries have discontinued.

Disaggregating poverty indicators can provide valuable information for determining specific groups of poor and how they fare over time. Disaggregation may be based on numerous criteria, but the most germane from a poverty perspective are: gender, age, ethnicity and location. Disaggregated data can also shed light on intrahousehold inequity.

Time-use data reveal how population sub-groups differ vis-à-vis the economic value of their work (i.e., paid or unpaid), types of activities performed and sometimes even intensity of activities. This data is often used for measuring gender equity and intra-household divisions of labour.

Governance indicators span a wide range of issues, most of that have not traditionally been either measured or associated with poverty. Those areas of greatest relevance to poverty measurement are: information circulation, institutional regulations and decentralization. Participation, usually considered a governance issue, has been described above under the capability poverty family of indicators.

It should be stressed that this set of indicators corresponds to opportunities for empowerment of the general population, not the poor per se. As such, they need to be interpreted in conjunction with the poverty profile and the particular characteristics of the poor in each country context.

Indicators of information circulation (i.e., the number of newspapers/1,000 people and the number of radios/1,000) provide crude measures of the general availability of information to the public, but do not reflect its quality (or people's ability to access it). For example, a country may have wide newspaper coverage, but a single political party may tightly control the information they contain. Institutional indicators, such as the number of registered civil society organizations and advocacy groups, can provide a rough gauge of freedom to associate, but they must be carefully interpreted from a poverty perspective since they may be inversely correlated with a government's commitment to poverty reduction. Indicators of decentralization (i.e., the percentage of national revenue allocated to local governments) must also be carefully interpreted. In some instances, decentralization indicators may reflect empowerment at the grassroots level, while in other cases it may simply mask multiple levels of administrative inefficiency.

The challenge of associating governance indicators with the measurement of poverty lies in determining when to associate the two, to what degree and how to interpret the results. There are no easy answers to these questions—much depends on the specific cause and effect relationships that define poverty within each country. In addition, by indiscriminately broadening the definition of poverty to include other broad concepts, one undermines the usefulness of the poverty concept from a policy and programming perspective. The association of related concepts is best done when teasing out the cause and effect relationships, rather than at the conceptual and measurement levels.

Do Different Concepts and Indicators Really Matter?

The preceding paragraphs have attempted to underscore the links between different poverty concepts and their corresponding indicators. But does it matter which indicators are used? Do different indicator sets identify different households/individuals as poor? Some empirical studies that have probed these questions are summarized in Box 2.

Box 2

Empirical Evidence—Do Different Conceptions/Indicators Matter?

Jodha (1988) examined living standards in two villages in Rajasthan, India from 1963 to 1966 and again from 1982 to 1984 on the basis of both income and quality of life indicators proposed by villagers themselves. Income data revealed that 38 per cent of households had become poorer and that the incidence of poverty had increased from 17 per cent to 23 per cent. By contrast, quality of life indicators for those households whose income declined revealed overwhelmingly that their standard of living had improved. The improvements were of five types: reduced reliance on traditional patrons and landlords; reduced dependence on low pay-off jobs; improved mobility and liquidity position; acquisition of consumer durables. These data support the view that different people will be deemed poor when using different conceptions of poverty/deprivation.

Lanjouw and Stern (1991) contrast findings from the Indian village of Palanpur using both current income and an 'apparent prosperity index,' based on the researchers' assessment of quality of housing, food and clothing; possession of durable goods; consumption of luxuries, etc. They found that 72 per cent of households were identified as poor by both approaches, but that certain characteristics of the poor differed sharply depending on the approach used (99 per cent of the 'apparent-prosperity-poor' are landless agricultural labourers compared to 63 per cent of the income poor). These data reveal that a moderate proportion of the same people are identified as poor by both approaches but that the poverty status of different proxy groups varies markedly when using different approaches.

Glewwe and van der Gaag (1990) examine the relationship in Côte d'Ivoire between consumption per adult equivalent and nine other welfare measures: per capita income; total household consumption; food ratio; height for age; weight for height; per capita floor area; and adult school attainment. They find that consumption per adult equivalent 'correctly' identifies only 29–66 per cent of persons in seven of the nine categories (the two exceptions are per capita consumption and per capita food consumption). Further, they find systematic differences in the characteristics of poor groups based on the different welfare indicator used. **Lachaud** (1995) presents a very similar analysis from Benin and comes to conclusions resembling those of **Anand and Harris** (1994) for Sri Lanka, using slightly different indicators. These data suggest that different conceptions of poverty/deprivation identify different groups with different characteristics as poor.

Source: UNDSPD/UNDESA Discussion Paper, *Poverty Reduction Strategies: A Review*, January 1998.

The conclusions of these studies suggest that the concepts and indicators used to measure poverty do matter a lot in identifying the poor. If this is true, then the next major question is whether and how the anti-poverty strategies associated with different concepts of poverty diverge. If, for example, one's concept of poverty is primarily lack of household income, and if

one settles for income or expenditure as the single most important indicator of poverty, then the logical strategies to reduce poverty would centre on **economic mobility**. If, on the other hand, one starts with a concept of poverty that traces its roots to the broader notion of human deprivations, then the indicators one would use to measure poverty would be largely of the human capability poverty group, and the logical strategies to address poverty would centre around building human capabilities to achieve **social mobility**.

Anti-poverty strategies aimed at stimulating economic mobility of the poor are based on an analysis of sources of personal income (both primary and secondary).[12] The entry points are twofold—increasing the processes of production, output and exchange, and of distribution. To increase primary income, strategies include augmenting the volume of output, increasing productivity and changing the relative prices of factor inputs. To increase secondary income, strategies focus on raising the level of transfers to the poor either through public transfers or safety nets. This has been summarized by the World Bank as its three-pronged approach to poverty reduction: economic growth (as the main engine for poverty reduction); human capital development (health and education); and safety nets (for those who fall through cracks, so to speak).

In contrast, poverty reduction strategies that seek to increase social mobility focus on a range of possible instigators of social change. This can involve some, or all, of the following factors: income or economic capital, human capital (as a means to an end), social capital, natural capital and physical capital. Typical poverty reduction strategies reflecting this approach include: universal access to basic health and education; expanded access to productive assets (i.e., land, credit, markets); social mobilization and participation of marginalized groups; sustainable livelihoods (social and environmental sustainability); and macroeconomic policy frameworks that promote growth in sectors dominated by the poor (or at least do not discriminate against them). Most UNDP-supported poverty reduction programmes fall into this set of strategies.

Although there may be overlap between some of the constituent elements of these two anti-poverty strategies, the underlying assumptions and overall thrust are distinct.

Some Practical Rules of Thumb for Selecting Poverty Indicators at Country Level

Given the recent resurgence of interest by development partners in both poverty reduction and development indicators, there have been numerous debates on how best to measure poverty. The arguments are often endless and at some point one has to come down on one side of the fence, despite the fact that no methodology or set of indicators is entirely perfect. With this in mind, the following general rules of thumb are proposed to help guide the process of selecting which indicators to use and when at country level.

ARE WE SPEAKING THE SAME LANGUAGE?

Different concepts of poverty assume different causes and manifestations, and are associated with distinct families of indicators, which influence the analysis leading to policy recommendations. There is an unfortunate tendency among development practitioners to erroneously assume their colleagues and interlocutors automatically share their own concepts of poverty. Before attempting to measure poverty, much less design policies and programmes for its reduction, it is imperative to be clear about what definitions are being applied. Although this might appear rather elementary, it often happens that the term "poverty" conjures up very different associations by people working side by side. From a policy and programme perspective, this can result in irrational and incoherent policy packages.

DON'T BE SEDUCED BY NEATNESS

Although most development practitioners agree that poverty is multi-dimensional, there is a strong tendency to rely on income indicators for its measurement. The arguments for this are that data for the other dimensions of poverty are scanty and because income is "neater" than trying to use a range of indicators expressed in different units. The resulting mainstream policy and programme advice is based largely on income poverty, sometimes with reference to social indicators.

A broader, human capability concept of poverty implies a messier approach to measurement, but results in richer and more well-rounded policy guidance. This broader approach is intellectually more challenging, but the pay-offs in terms of policy and programme implications are potentially high.

DON'T CONFUSE THE MAP WITH THE COUNTRY

All too frequently the indicators of poverty are mistaken for the phenomenon itself. The broader one's concept of poverty, the more critical this pitfall. There is no perfect set of poverty indicators that captures simultaneously all imaginable aspects of the phenomena. It is imperative to resist the temptation to attribute more to the indicators than the information they actually convey. Given the limitations associated with each category of poverty indicators, it is important to keep in mind what the indicators *do not* convey so that erroneous conclusions are not drawn from the data.

BE CLEAR ABOUT WHAT YOU WANT TO MEASURE AND WHY

Before selecting a set of poverty indicators, it is important to be clear on exactly what one wants to measure and why. The "what" refers to the types of poverty being addressed (chronic, transient, new, absolute or relative) as well as the level (national, provincial, district, village or household). Different approaches to poverty measurement are required for different types and levels of poverty, although some aspects of poverty have no corresponding means of measurement.[13] The "why" refers to what the data is to be used for—poverty mapping, monitoring, policy formulation, programme

development, budgetary allocations, etc. The answers to these questions will determine both the type and combination of indicators employed and their periodicity.

For example, if the objective is to measure chronic poverty from a broad human development perspective at the national level for purposes of monitoring and budgetary allocations for anti-poverty programmes, the set of indicators to use would include those covering human deprivation, income, access to assets and social services. If, on the other hand, the objective is to obtain a better understanding of absolute poverty in a few local districts for purposes of programme development and monitoring, the set of indicators employed would be very different. First, subjective indicators would be beneficial both for the insights they can provide to guide both the choice of quantitative poverty indicators and the formulation of the programme, as well as for the participation they evoke from villagers. In cases where programming budgets do not permit a thorough assessment of poverty, subjective indicators can help identify general proxy indicators of poverty to guide programme development. Second, a more specific level of human poverty indicators than those used at the national level would be more appropriate at the local level. For example, indicators of the incidence of specific diseases would be more meaningful than general morbidity rates. Indicators of access to assets, infrastructure and services would also be highly relevant.

FOLLOW THE "MIDDLE PATH"

Past approaches to poverty measurement have tended to be reductionist. However, attempts to combine large sets of indicators in order to capture a wider picture of poverty have only met with marginal success. This is because at one end of the spectrum they have been constrained by availability of data and at the other extreme some attempts have stretched the concept of poverty beyond workable boundaries.

A pragmatic approach to measuring poverty from a broad, human development perspective would be a "middle path"—combining a manageable range and number of indicators. A proposal for this approach is made in *Implementing Complementary Methods of Poverty Measurement* by Terry McKinley.

A major challenge to the multiple-indicators approach to poverty measurement is the analysis of the data from a policy perspective. What happens if income indicators show a decline in poverty, while human capability indicators show a rise? What is actually happening to poverty? Once data unreliability has been ruled out, one way of dealing with the analysis is to forgo the luxury of being able to state in aggregate who the poor are and how many of them there are, and instead to draw out the policy implications of each set of indicators separately. Such an approach would lead to the identification of different types of poverty and different policy proposals for dealing with it. If tradeoffs arise, policy precedence would have to be contextually specific. That is to say, that although one's approach to measuring poverty may be built on a capability poverty foundation, it would be

impracticable to assume that precedence should always be given to the policy implications emerging from capability indicators as opposed to other indicators. It is not difficult to imagine a situation where income generation for a particular group of poor households would be urgent and require priority attention in order to realize greater human capabilities.

BEWARE OF COMPOSITE INDICES AT COUNTRY LEVEL

Merging sets of indicators into composite indices may make it easier to "average out" multiple variables; however, it usually necessitates the use of a small range of indicators because of methodological constraints. Composite indicators can be useful for advocacy and cross-country comparative purposes. However, they hide important policy and programme messages inherent in their constituent variables. For poverty monitoring within countries, it is therefore not advisable to combine different indicators into composites for policy purposes, but to let each set of indicators speak for itself.

HOUSEHOLDS ARE COMPRISED OF INDIVIDUALS

Many poverty indicators are based on household surveys, assuming homogeneity within the household. However, experience shows that individual members of a household are often treated very differently. For example, households in countries characterized by boy-child preference will often discriminate against their female members in terms of less food and less or no schooling. Recognition of this has resulted in attempts to disaggregate conventional indicators by gender, and the use of "adult equivalent" units, rather than households. However, problems are also encountered in disaggregation, for example, when a child consumes less food than an adult but requires greater resources in terms of medicine or clothing.

SOME INDICATORS ARE MORE EXPENSIVE THAN OTHERS

There is a strong positive correlation between the accuracy and cost of collecting data for an indicator. In other words—the cheaper the indicator, the less accurate it is. Development practitioners are constantly struggling with the tradeoff between accuracy and cost of gathering data, hence one of the attractions of proxy indicators.

For example, maternal mortality, being statistically a rare event, is both difficult and expensive to measure. Many development practitioners therefore use proxy indicators. Since studies show that maternal mortality is often a result of lack of emergency obstetric care, indicators of the absence/presence of such services are often used as proxies.

Footnotes

[1] For a more in-depth discussion of absolute and relative poverty, see Part One, article B, pp. __ to __ of this volume.

[2] Sen, A. K., 'Poor, relatively speaking', in *Resources, Values and Development*, Oxford, Basil Blackwell, 1994.

[3] Streeten, Paul, 'Poverty Concepts and Measurement', in *Poverty Monitoring: An International Concern*, UNICEF, 1994, p. 19.

[4] This section draws heavily from Shaffer, Paul, "Poverty Reduction Strategies: A Review," UNDSPD/UNDESA Discussion Paper, Jan. 1998.

[5] UNDP, *Human Development Report, 1997*, Oxford University Press, New York, 1997, p. 16.

[6] Streeten, Paul, "Poverty Concepts and Measures" in *Poverty Monitoring: An International Concern,* St. Martin's Press; U.K., 1994, p. 17.

[7] *Human Development Report 1997*, UNDP, Oxford University Press, New York, 1997, p. 15.

[8] Since the basic needs approach is a step closer than the income family to measuring human well being, they are sometimes classified as indirect "ends", rather than "means" indicators.

[9] Khan, Azizur Rahman, "National Poverty Reduction Strategy: the Case Study of China," UNDP.

[10] Although the issue of participation is touched on by the basic-needs-family of indicators from a conceptual perspective, in practice the main indicators associated with basic needs pertain to access to food, shelter and basic social services. Because of this, indicators of participation have been more closely associated with the human capability poverty family (participation being considered an end in itself). As previously mentioned, the advisability of integrating participation with the poverty concept (and thus its measurement) is questionable from a policy and programming perspective. This author advises separate monitoring of the two related concepts. Since many practitioners are looking for ways to either merge or at least associate the two, this article goes on to briefly describe participation indicators.

[11] Khan, Azizur Rahman, "National Poverty Reduction Strategy: the Case Study of China," UNDP.

[12] "Primary income refers to income generated directly through the production and exchange of goods and services. It is transmitted through markets, in particular labour and product markets. Secondary income refers to the distribution of income through public or private transfers. These include, inter alia, subsidized goods (food) and services (health, education), remittances, pension receipts, etc." Shaffer, Paul, "Poverty Reduction Strategies: A Review," UNDSPD/UNDESA Discussion Paper, Jan. 1998.

[13] Most poverty measurements do not capture the dynamics of poverty, i.e., the plight of households and individuals who fall in and out of poverty over time. There is also no easy way of capturing lifetime poverty, although attempts have been made.

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